

WHAT IS CLAIMED IS:

1. A specimen preprocessing and conveying system comprising:

5 a conveying line including a first conveying line which allows a specimen container to be conveyed in a forward direction along a processing route and a second conveying line which allows the specimen container to be conveyed in a backward direction against the processing route, the first conveying
10 line and the second conveying line being arranged in parallel with each other;

an analytic apparatus which receives the specimen container from the first conveying line of the conveying line, analyzes a specimen in the specimen
15 container, and moves the specimen container onto the first conveying line;

a stockyard which receives and stocks the specimen container whose specimen has been analyzed by the analytic apparatus, removes the specimen container when
20 necessary, and selectively moves the specimen container onto the first conveying line and the second conveying line;

a monitor control unit which monitors an analytical result of the analytic apparatus and issues
25 a reanalysis instruction to the specimen container stocked in the stockyard when the specimen container contains a specimen that needs to be reanalyzed; and

a reanalysis control unit which removes the specimen container to which the monitor control unit issues the reanalysis instruction, from the stockyard, conveys the specimen container on the second conveying
5 line in the backward direction opposite to the forward direction of the first conveying line to the analytic apparatus, and reanalyzes the specimen in the specimen container.

2. A specimen preprocessing and conveying system
10 comprising:

a conveying line including a first conveying line which allows a plurality of specimen containers to be conveyed in a forward direction along a processing route and a second conveying line which allows the
15 specimen containers to be conveyed in a backward direction against the processing route, the first conveying line and the second conveying line being arranged in parallel with each other;

a carry-in unit which moves a plurality of
20 specimen containers, which are stored in a storage rack placed near the conveying line, to respective specimen container holders on the first conveying line using a robot arm;

a centrifugal unit which receives the specimen
25 containers from the specimen container holders on the first conveying line, centrifuges specimens in the specimen containers, and moves the specimen containers

whose specimens have been centrifuged to the specimen container holders on the first conveying line;

5 a stopper removing unit which removes and disposes of a stopper of each of the specimen containers moved to the specimen container holders on the first conveying line after the specimens in the specimen containers are centrifuged by the centrifugal unit;

10 analytic apparatuses of different types which receive given specimen containers of the specimen containers whose stoppers are removed by the stopper removing unit, analyze specimens in the given specimen containers, and moves the given specimen containers to respective specimen container holders on the first conveying line;

15 a stockyard which receives the specimen containers whose specimens have been analyzed by the analytic apparatuses by a robot arm, stocks the specimen containers on stock floors, and selectively moves the specimen containers to the specimen container holders on the first conveying line and the specimen container holders on the second conveying line when necessary;

20 a monitor control unit which monitors analytical results of the analytic apparatuses and issues a reanalysis instruction to the specimen containers stocked in the stockyard when the specimen containers contain specimens that need to be reanalyzed; and

a reanalysis control unit which removes the

specimen containers to which the monitor control unit issues the reanalysis instruction, from the stockyard, conveys the specimen containers to the specimen container holders on the second conveying line in the backward direction opposite to the forward direction of the first conveying line to be sent back to the analytic apparatuses, and reanalyzes the specimens in the specimen containers.

3. The specimen preprocessing and conveying system according to claim 1, wherein the monitor control unit and the reanalysis control unit are operated in association with each other by exchanging information with a host computer.

4. The specimen preprocessing and conveying system according to claim 2, wherein the monitor control unit and the reanalysis control unit are operated in association with each other by exchanging information with a host computer.